

Notice of Allowability

Application No.

10/528,759

Examiner

Dixomara Vargas

Applicant(s)

TSUDA ET AL.

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 07/02/07.
2. ☒ The allowed claim(s) is/are 1-7 and 9-37.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Paul Teng on 08/10/07.

The application has been amended as follows:

Replace the Abstract with the following:

“A MRI apparatus includes a super-conducting magnet including a superconducting coil circuit having a super-conducting coil and a permanent current switch for controlling permanent current flowing through the super-conducting coil; at least one electrical circuit which is electrically connected to at least one electrical element and disposed at the outside of the super-conducting magnet; a gradient magnetic field generating means; a high frequency magnetic field generating means; and shielded examination room which accommodates the super-conducting magnet. The apparatus further comprises means for interrupting noise current generated based on tomographic image measurement of the subject. Said means is disposed outside the super-conducting magnet and inside the shielded examination room while being inserted between the electrical circuit and the super-conducting magnet.”

Election/Restrictions

2. Claims 1, 10 and 15 are allowable. The restriction requirement between species I-III, as set forth in the Office action mailed on 08/14/06, has been reconsidered in view of the allowability of claims to the elected invention pursuant to MPEP § 821.04(a). **The restriction requirement is hereby withdrawn as to any claim that requires all the limitations of an allowable claim.** Claims 4, 13, 21-23 and 34 are no longer withdrawn from consideration because the claim(s) requires all the limitations of an allowable claim. In view of the above noted withdrawal of the restriction requirement, applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Allowable Subject Matter

3. Claims 1-7 and 9-37 are allowed.
4. The following is an examiner's statement of reasons for allowance:
 - a. With respect to claim 1, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggests a magnetic resonance imaging apparatus comprising a control circuit or a monitor circuit is electrically connected to the heater element or the sensor element and disposed outside

the helium vessel; means for interrupting formation of a closed loop circuit passing through the control circuit or the monitor circuit and the superconducting coil circuit and being provided inside the shielded examination room between the superconducting magnet and the control circuit or the monitor circuit in combination with the remaining limitations of the claim.

b. With respect to claim 9, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggests a super-conducting magnet device comprising a vessel provided with a terminal portion for connecting a heater element or a sensor element disposed in the vessel to an external circuit and the terminal portion is provided with means for forming a closed loop circuit including the external circuit, an outer wall of the vessel and a grounding point provided at the wall in combination with the remaining limitations of the claim.

c. With respect to claim 10, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggests an open type magnetic resonance imaging apparatus using a superconducting magnet comprising a control circuit and a monitor circuit which are disposed outside the cryostat and are respectively connected electrically to the control element and the measurement element; means for preventing high frequency current induced by the gradient magnetic field coils or the high frequency magnetic field coils from flowing in from the control circuit or the monitor circuit to the super-conducting coil circuit and being provided inside the shielded examination room between the superconducting magnet and the control circuit or monitor circuit in combination with the remaining limitations of the claim.

Art Unit: 2859

d. With respect to claim 15, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggests a magnetic resonance imaging apparatus comprising mean for interrupting noise current generated based on tomographic image measurement of the subject and of which means is disposed outside the super-conducting magnet and inside the shielded examination room while being inserted between the electrical circuit and the super-conducting magnet in combination with the remaining limitations of the claim.

e. With respect to claims 2-7, 11-14 and 16-37, the claims have been allowed due to its dependency on claims 1, 10 and 15 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on Monday to Thursday from 8:00 am. to 4:30 pm..

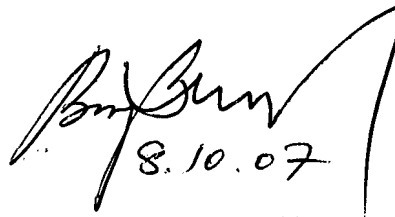
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2859

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dixomara Vargas
Patent Examiner
Art Unit 2859



BRIJ SHRIVASTAV
PRIMARY EXAMINER